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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,556	11/28/2003	Tomoaki Abe	ST3001-0035	4976
39083	7590	04/04/2005	EXAMINER	
CERMAK & KENEALY, LLP 23 W. Myrtle St Alexandria, VA 22301			HU, SHOUXIANG	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,556

Applicant(s)

ABE ET AL.

Examiner

Shouxiang Hu

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,7-10,13-17 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,11,12,18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. In view of the previous office actions, claims 4-5, 7-10, 13-17 and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention.

Accordingly, Claims 1-20 are pending in this application; and claims 1-3, 6, 11-12, 18 and 19 remain active in this office action.

Claim Objections

2. Claim 11 is objected to because of the following informalities and/or defects:

Claim 11 recites the subject matter that the LED has two upper electrodes and a lower electrode; but the disclosure fails to adequately describe what are the respective functions of the three electrodes therein, given that an LED is a diode that normally only has two electrodes therein. Although the specification and the drawing of the instant invention may support the subject matters that the two electrodes for the LED chip may be formed both on the top, or one on the top with the other one at the bottom of the LED chip; but it lacks an adequate description regarding the subject matter of an LED having three electrodes, other than the normal one having only two electrode, cathode and anode.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6, 11-12, 18 and 19, as being best understood in view of the claim objections above, are rejected under 35 U.S.C. 102(e) as being anticipated by Fjelstad (US 6,583,444).

Fjelstad discloses a surface-mounted light-emitting diode (Figs. 7, 8 and 12), comprising: a light-emitting diode chip (332) sealed in an optically transmissive resin (348, 354 and/or 360); a plurality of metallic films (374, 328, and/or 326) formed on different locations in/or a surface of the optically transmissive resin; and a plurality of electrodes formed on or under the light-emitting diode chip and connected to respective ones of said metallic films, wherein the electrodes include the upper one and the lower one. And, it is noted that the metallic layer 328 (see Fig. 8b), or at least its bottom surface portion, or the lamination of the layer 328 and the overlying and underlying films 374 (see Figs. 7G-7J) each can be naturally regarded as a metallic film as it is metallic and is substantially thin; and that the bottom surface of it is exposed at the bottom surface of the light-emitting diode.

In addition, it is noted that any potentially implicated process limitations regarding how the recited metallic film is made would not carry patentable weight in the claims drawing to a structure, because distinct structure is not necessarily produced. In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985).

Regarding claim 3, the metallic film (374) under the lower electrode (378) in Fjelstad is conical shaped and has a reflective inner surface.

Regarding claim 11, the LED chip (332) in Fjelstad can naturally have more than one upper electrode connections as it can comprise more than one LEDs (see col. 10, lines 40-56).

Response to Arguments

5. Applicant's arguments filed on 01/26/05 have been fully considered but they are not persuasive.

Applicant's main arguments include: the Fjelstad does not disclose the recited metallic film that is formed directly on and exposed from a surface of the optically transmissive resin. In response, as noted in the above claim rejections, the metallic layer 328 (see Fig. 8b), or at least its bottom surface portion, or the lamination of the layer 328 and the overlying and underlying films 374 (see Figs. 7G-7J) each can be naturally regarded as a metallic film as it is metallic and is substantially thin; and that the bottom surface of it is exposed at the bottom surface of the light-emitting diode. Furthermore, it is noted that any potentially implicated process limitations regarding how the recited metallic film and/or the optically transmissive resin are/is made would not

carry patentable weight in the claims drawing to a structure, because distinct structure is not necessarily produced. In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

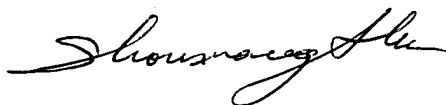
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2811

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH
March 28, 2005

A handwritten signature in black ink, appearing to read "Shouxiang Hu", written in a cursive style.

SHOUXIANG HU
PRIMARY EXAMINER